

Listing of the Claims:

1. (Previously presented) An integrated circuit having a power distribution network, the power distribution network comprising:

a power bus and a ground bus for supplying power from respective power and ground pads to a plurality of circuit elements on the integrated circuit; and

a plurality of decoupling cells for providing a static current flow between the power pad and the ground pad, and wherein the power distribution network is configured such that each given circuit element on the integrated circuit is arranged with a combined distance equal to a sum of a length of the power bus connected between the power pad and said circuit element plus a length of the ground bus connected between the ground pad and said circuit element, and each of the combined distances being equal.

2. (Previously presented) An integrated circuit as claimed in claim 1, wherein the combined distances are equal for predominantly all of the circuit elements in the integrated circuit.

3. (Previously presented) An integrated circuit as claimed in claim 1, wherein the power pad and the ground pad are arranged at diagonally opposite corners of the integrated circuit.

4. (Previously presented) An integrated circuit as claimed in claim 1, wherein the power distribution network comprises:

a power bus comprising a vertical section connected to the power pad, and one or more horizontal sections connected to the vertical section;

a ground bus comprising a vertical section connected to the ground pad and one or more horizontal sections connected to the vertical section;

wherein the vertical section of the power bus is arranged parallel to the vertical section of the ground bus, such that the one or more horizontal sections of the power bus interleave the one or more horizontal sections of the ground bus; and

wherein one of the circuit elements is connected between horizontal sections of the power bus and ground bus and arranged with said combined distance that is equal to said

combined distance for another one of the circuit elements that is connected between different horizontal sections of the power bus and ground bus.

5. (Previously presented) An integrated circuit as claimed in claim 4, wherein a horizontal section of the power bus and a horizontal section of a ground bus form a row for powering one or more of the circuit elements.

6. (Previously presented) An integrated circuit as claimed in claim 5, wherein one or more circuit elements are located between the horizontal section of the power bus and the horizontal section of the ground bus.

7. (Previously presented) An integrated circuit as claimed in claim 1, wherein the decoupling cells include decoupling capacitors.

8. (Original) An integrated circuit as claimed in claim 7, wherein the decoupling cells are configured to be the same height as the circuit elements.

9. (Original) An integrated circuit as claimed in claim 8, wherein the decoupling cells are arranged between circuit elements on the integrated circuit.

10. (Previously presented) An integrated circuit as claimed in claim 1, wherein the power distribution network comprises one or more smaller power distribution networks having the same configuration.

11. (Previously presented) An integrated circuit as claimed in claim 1, wherein the power distribution network is configured to maintain the voltage drop between the power pad and each circuit element constant, relative to the voltage drop for predominantly all of the circuit elements in the integrated circuit.

12. (Previously presented) An integrated circuit as claimed in claim 1, wherein the decoupling cells are configured to maintain the voltage drop between the power pad and each

circuit element constant, relative to the voltage drop for predominantly all of the circuit elements in the integrated circuit.

13. (Previously presented) An integrated circuit as claimed in claim 1, wherein the decoupling cells are configured to selectively couple each of said given circuit elements to maintain combined distance constant among predominantly all of the circuit elements.

14. (Previously presented) For supplying power to a plurality of circuit elements on an integrated circuit, a power distribution network comprising:

- a power pad;
- a ground pad;
- a network of conductors to connect the power pad and the ground pad to each of the plurality of circuit elements; and
- a plurality of decoupling cells for providing a static current flow between the power pad and the ground pad, and wherein each given circuit element is arranged with a combined distance equal to a sum of a length of the conductors connected between the power pad and said circuit element plus a length of the conductors connected between the ground pad and said circuit element, and each of the combined distances being equal.

15. (Previously presented) The power distribution network of claim 14, wherein the decoupling cells maintain the constant combined distance for a circuit element by connecting the conductors to the circuit element to decrease the distance between the circuit element and one of the power pad and the ground pad in a manner that is complementary to an increased distance between the circuit element and the other one of the power pad and the ground pad.

16. (Previously presented) The power distribution network of claim 14, wherein the decoupling cells maintain the constant combined distance for a circuit element by connecting the conductors to the circuit element to increase the distance between the circuit element and one of the power pad and the ground pad in a manner that is complementary to a decreased distance between the circuit element and the other one of the power pad and the ground pad.

17. (Previously presented) The power distribution network of claim 14, wherein the decoupling cells maintain a static current between the power pad and the ground pad by connecting the circuit elements via the conductors.

18. (Previously presented) The power distribution network of claim 14, wherein a plurality of the decoupling cells are arranged to provide current flow to a particular one of the circuit elements and therein partly defining the combined distance for the particular one of the circuit elements.

19. (Previously presented) An integrated circuit as claimed in claim 1, wherein a plurality of the decoupling cells are arranged to provide current flow to a particular one of the circuit elements and therein partly defining the combined distance for the particular one of the circuit elements.

20. (Previously presented) An integrated circuit as claimed in claim 1, wherein at least one of the decoupling cells is arranged to provide current flow to at least two of the circuit elements and therein partly defining the combined distance for the at least two of the circuit elements.